



GLAST Science Working Group Meeting

S. Ritz



Agenda

GLAST SWG Face-to-Face Meeting 1 October 2004
Draft Agenda, V1.3
Stanford Campus HEPL Conference Room

Time	Duration	
8:30	00:30	Breakfast, signing in
9:00	00:10	Welcome, Agenda Review, Minutes, Announcements
9:10	00:20	News from NASA and DOE
9:30	00:20	Mission report, CDR, issues
9:50	00:15	GBM team report, issues
10:05	00:30	Report on BWG review of GBM calibration & trigger
10:35	00:20	Break
10:55	00:40	IDS Reports
11:35	00:15	E/PO report
11:50	00:05	E/PO in Italy
11:55	01:05	Lunch
13:00	00:10	LAT team meeting summary
13:10	00:20	Report from the GUC meeting
13:30	00:30	Guest Observer planning; resolution of data rights in year 1
14:00	01:10	LAT transient releases during year 1 and beyond
15:10	0:20	Break
15:30	1:00	On-orbit observatory alignment calibration observations
16:30	1:00	AOB, Future Meetings, Action Items
17:30		Adjourn

S. Ritz
D. Kniffen, K. Turner
K. Grady
C. Meegan
C. Meegan, N. Gehrels
C. Dermer, B. Dingus, M. Pohl,
S. Thorsett
L. Cominsky
P. Caraveo
P. Michelson
J. Grindlay
S. Ritz, discussion
P. Michelson presentation;
discussion
J. McEnery



Some Activities Since the Last Telecon

- **GLAST session at HEAD**
 - Mission Overview and Status - S. Ritz
 - X-Ray Astronomy and GLAST - R. Mushotzky
 - The Infrared to Gamma-ray Connection for AGN: Spitzer Space Telescope to GLAST - A. Wehrle
 - Trying to Get Ready: Blazars, Pulsars, and Unidentified Sources in the GLAST Sky - R. Romani
 - plus...talk by Dave Thompson in the VERITAS Workshop on the following day, and several GLAST posters and the E/PO booth.
- **SWG/BWG review of GBM calibration, trigger, and instrument response matrix Aug 31 and Sept 2.**
- **Mission CDR! (more later)**
- **Joint SWG-LAT GeV-TeV symposium yesterday (thanks, Julie!)**



Users Committee (GUC)

- External review/feedback on science tools planning and progress. Now meets twice/year. Most recent meeting in August.
- Includes members from both the astrophysics and high-energy particle physics communities who are likely users of GLAST data.

Dave Bertsch

Roger Brissenden

Jim Buckley

Josh Grindlay (Chair)

Wim Hermsen

Jim Ling

Alan Marscher

Reshmi Mukherjee

Rene Ong

Rita Sambruna

Greg Stacy

Mark Strickman

Ann Wehrle

Ex-officio: Peter Michelson (LAT), Chip Meegan (GBM), Don Kniffen(HQ),
Steve Ritz (Project Scientist), David Band(GSSC).



Some activities starting/ongoing

- Burst alert and repoint request parameters discussion. Will result in a proposal to SWG and GUC.
- Start generating list of Ops parameters (knobs)
 - sky survey and pointing parameters
 - instrument parameters
 - needs a discussion (including GUC) about process(es) for modifying these parameters
- GLAST Symposium IOC
 - Atwood, Blandford, Bloom, Dermer, Dingus, Gehrels, Giommi, Grenier, Hermsen, Kouveliotou, McEnery, Meegan, Michelson, Ormes, Pohl, Ritz
 - email majordomo set up. Startup next week
- LAT performance parameters update
 - add differential (in energy) point source sensitivity
 - include integral sensitivity curve (all gamma experiment plot)
- Scrub end-to-end data latencies
 - look for simple ways to make improvements



Year 1 Data



Year 1 GO Program

The AO states, "During the first twelve months of science operations, data from specific sources of interest to qualified individual researchers will be made available on request to the GO Facility. Note that large projects, i.e., those involving large number[sic] of sources and/or very long observing times, will not be permitted by outside researchers during this period. At all times, including the first twelve months of science operations, the data from transient sources discovered or detected by GLAST will immediately be made publicly available. During the first twelve months of operations, the instrument may not have been completely calibrated, and, thus, any data made available may be unvalidated and unverified."

- **Previously, this was interpreted as follows:**
 - **~10 GOs would be selected. Since the GSSC doesn't have the data, LAT would have to serve the data to these select few. In exchange, the selected GOs would be encouraged to help LAT.**
 - **Problems: Policy is unclear (e.g., what does "encouraged" mean?). Also, most of the world does not see these data during year 1. Also, LAT will spend considerable effort serving data to these GOs when it should be concentrating on understanding the instrument (issue raised at the previous GUC). Serious issues will arise if GOs share data with others. Finally, this is at variance with the philosophy for the rest of the mission (fundamentally, GLAST data can not be carved up).**
 - **LAT will release transient data, according to a policy vetted with the SWG and GUC.**



A Different, Much Simpler Way

- **Proposal:**
 - LAT to propose a data release policy that includes some additional select sources, vetted with the GUC and SWG.
 - The GO program during year 1 is not "limited":
 - Year 1 GOs will be funded to analyze the data released to the public and to organize the preparations for analyses of released data after year 1. GOs selected during year 1 will not be given special access to unreleased LAT data during year 1. In exchange for releasing more data to the public, LAT does not have to provide an ersatz GSSC function.
 - Should result in fewer problems and greater science return from the mission.



Guest Observer Program Project Planning

- Expect 100 funded Guest Observers (GO's) per year
 - Very broad menu of science topics, with approximate expected distributions (actual distribution selected by peer review):
 - AGN incl. multi-wavelength studies (VHE Gamma, X-ray, Radio, Optical): 20
 - Supernova remnants: 5
 - Pulsars (radio loud/quiet): 5
 - Solving mysteries of EGRET Unidentified Sources: 10
 - Galactic diffuse studies and dark matter searches: 10
 - Extragalactic diffuse studies: 5
 - Galaxy clusters and other extended emission: 5
 - Gamma-ray bursts: 10
 - Cosmology/fundamental physics: 10
 - New source classes: 10
 - Solar Flares: 2
 - Very high-energy cosmic rays: 3
 - Other: 5
- Expect additional 100-200 users of the data, funded by other agencies (DOE) and other countries



SWG Statement

- The **SWG** endorses the contents of the LAT proposal, along with the proposed process for iterating the details of the source lists.
 - provides significantly more access to information about the gamma-ray sky earlier for more people
 - possible addition of microquasars
 - change "blazar" to AGN in the source list table
- The **SWG** expresses concern about either penalizing or unfairly giving advantages to the LAT affiliated scientists for funding in the year 1 **GO** program.
- **SWG** notes that year 1 **GO** funding is for analysis of **PUBLIC** data, tool development, and **MW** observations only. As such, LAT affiliated scientists who propose for funding in year 1 do so **ONLY** on that basis. Selection criteria ignore access to LAT photons.



Fellowship Program

- **GLAST Fellows**
 - *GLAST* represents a huge incremental capability for exploration in gamma rays (one of the reasons *GLAST* science is ranked so highly). The limitations of existing data, collected more than a decade ago, tend to limit the way in which the data are used. New ways of thinking about how to use *GLAST* data will maximize the science output. A single new idea can have a huge impact on the legacy of the mission.
 - Providing a high-profile opportunity for young and creative minds to lead gamma-ray data analyses in new directions will likely have a huge payoff for a relatively small leverage investment.
 - \$100k/fellow.
 - 3 fellows selected per year, for a 3-year term (9 steady-state).



AOB, End-of-day Discussions

- **SWG telecon and F2F meeting changes/improvements**
- **GO Project Planning and Fellows**
- **Action Items**
- **Other SWG work**

- **Future meetings prep (Texas, Jan AAS) - ACTION -SR to ensure abstracts & posters (instruments & GSSC, mission), display booth (Lynn).**



Open Action Items

- 10/1/04 Post URL for GBM BWG/SWG review. S.Ritz by 10/5; Brenda to send comments to Chip by 10/15
- 10/1/04 BWG to send to SWG proposed parameter sets for repoint algorithms: Chip and Neil by 18 Nov. (Discussion at telecon 2 Dec)
- 6/24/04 Project discussion whether to pursue using the LAT VDG at Spectrum Astro. S. Ritz
- 6/24/04 LAT to propose revised policy for transient monitoring at September meeting P. Michelson. CLOSED today.
- 10/01/04 Elliott and Chip provide to Lynn pictures of the LAT and GBM hardware by 1 November.
- Future meetings prep (Texas, Jan AAS) -SR to ensure abstracts & posters (instruments & GSSC, mission), display booth (Lynn).



Future Meetings

- **Telecon dates (keep 2-month cadence):**
 - 2004: 2 December already scheduled
 - 2005: 27 January, 24 March, 26 May, 28 July, 22 September, 1 December
- **FYI:**
 - LAT meeting tentative dates (all at SLAC)
 - 8-10 March
 - 29 August week
- **AGREED: SWG F2F + Joint mini-symposium 29 August week.**
 - joint mini-symposium should also include GUC on Thursday, Sept 1; SWG business meeting Friday, Sept 2.
 - Topic? Non-blazar AGN, Relativistic Jet Sources, Extended Sources, Galactic Center.
- **Plus face-to-face meeting on Monday March 7 (no mini-symposium).**